



**POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT**

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
MS D000773564

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Illinois Central Gulf-Louisville, MS		02 STREET ADDRESS OR SPECIFIC LOCATION IDENTIFIER Cagle Street and Highway 15	
03 CITY Louisville, Mississippi		04 STATE MS	05 ZIP CODE 39339
06 COORDINATES LATITUDE 33 06 26.0 LONGITUDE 089 03 24.0		08 COUNTY Winston	07 COUNTY CODE 08 CENSUS 05*

10 DIRECTIONS TO SITE (Starting from nearest public road)

Site is just to the west of Highway 15 and to the South of Cagle Street in Louisville, MS.

III. RESPONSIBLE PARTIES

01 OWNER of property Midsouth Railroad		02 STREET ADDRESS, mailing, residential	
03 CITY Jackson		04 STATE MS	05 ZIP CODE (601) 353-7508
07 OPERATOR of property and different from owner Gulf and Mississippi Railroad		08 STREET ADDRESS, mailing, residential	
09 CITY Columbus		10 STATE MS	11 ZIP CODE (601) 329-6620
13 TYPE OF CONTAMINATION (Check one) <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input checked="" type="checkbox"/> F. OTHER: Corporate			

14 OWNER/OPERATOR NOTIFICATION ON FILE (check at this date) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (RCRA 106) DATE RECEIVED: MONTH DAY YEAR <input checked="" type="checkbox"/> C. NONE	
---	--

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION <input type="checkbox"/> YES DATE MONTH DAY YEAR <input checked="" type="checkbox"/> NO		02 FOLDER at this date <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER	
03 SITE STATUS (check one) <input type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input checked="" type="checkbox"/> C. UNKNOWN		04 YEARS OF OPERATION MONTH YEAR MONTH YEAR <input type="checkbox"/> UNKNOWN	

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Oil, grease, diesel fuel, PCB, heavy metals, battery acid

06 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Possible threat to surface and ground water.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Response) <input type="checkbox"/> A. HIGH <input type="checkbox"/> B. MEDIUM <input checked="" type="checkbox"/> C. LOW <input type="checkbox"/> D. NONE			
--	--	--	--

VI. INFORMATION AVAILABLE FROM

01 CONTACT Trey Fleming		02 OF (Agency/Department) Mississippi Bureau of Pollution Control		03 TELEPHONE NUMBER (601) 961-5171	
04 PERSON RESPONSIBLE FOR ASSESSMENT Trey Fleming		05 AGENCY MS DNR	06 ORGANIZATION BPC	07 TELEPHONE NUMBER (601) 961-5171	08 DATE 12 30 87



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

1. IDENTIFICATION
01 STATE MS 02 SITE NUMBER D000773564

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

possible, but highly unlikely

01 ☒ B SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Possible-

Oil and grease releases above NPDES levels documented

01 ☐ C CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

01 ☐ D FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

01 ☐ E DIRECT CONTACT 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

01 ☒ F CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Possible

01 ☐ G DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

01 ☒ H WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Possible

01 ☐ I POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

None

ILLINOIS CENTRAL GULF/LOUISVILLE
PRELIMINARY ASSESSMENT
MSDC00773564

APPROVED 2-2-79
M. D. K. R. D. C.

A) SITE DESCRIPTION

The Illinois Central Gulf (ICG) railroad yard is located just west of Highway 15 on the southern edge of the City of Louisville, Winona Co. Mississippi. Louisville is about 80 miles northeast of Jackson, Mississippi. (12)

The site is a servicing point for diesel locomotives. Though it is listed as an ICG facility on the CERCLIS list, it is actually run by Gulf and Mississippi (G & M) Railroad, whose offices are in Columbus, Mississippi. (1, 2)

B) DESCRIPTIONS OF HAZARDOUS CONDITIONS

The facility services long haul diesel locomotives. According to Mississippi Bureau of Pollution Control's Industrial Wastewater files, the facility does have a permitted discharge of oil and grease. It is unknown how old the facility is. Fuel and lubricants are the most likely contaminants. Also possibly present is PCB, which was used for a time in the electrical system of diesel locomotives. Other possible contaminants are battery wastes, heavy metals (from batteries) and acids (also from batteries). (2, 4, 5)

Around 1979, an oil spillage collection facility was installed to contain oil and fuel spills during servicing.

C) NATURE OF HAZARDOUS MATERIALS

Though it is unclear whether there are any chemical contaminants onsite, described here are some hazardous properties of possible contaminants.

Gasoline (fuel) is a skin and eye irritant. Because it defats the skin, dermatitis may result from prolonged or repeated contact. Also, gasoline vapors depress the central nervous system.

Polychlorinated biphenyls (PCBs) may have been used in the trains vast electrical systems. PCBs are a class B2 carcinogen. Prolonged skin contact may cause chloracne. Also, extended exposure may cause liver damage and stillbirth to children whose mothers were exposed during pregnancy.

Cadmium is also a carcinogen. It is a respiratory tract irritant, causes pulmonary edema and emphysema. (7, 8)

D) RCRA STATUS

The site does not appear under "Illinois Central Gulf" or "Gulf and Mississippi" on the Hazardous Waste Data Management System (HWDMS) list.

G & M Railroad did, however, submit a Form OMB #2000-0098 request as a hazardous waste transporter. The EPA identification number issued was MSD981027436. This request is not site specific to the Louisville facility.

E) ROUTES OF CONTAMINATION

A windshield survey of the site was not performed, so there isn't a clear picture of routes of contamination and human exposure. The state NPDES file, however, says that the effluent leaves the site via an unnamed stream. This stream discharges into Hughes Creek, which, in turn, discharges into Tallahaga Creek.

Surface water contamination would be the most apparent route of offsite contaminant migration. Oil, grease and diesel fuel discharges would be evident in the stream. Any PCB or metals contamination would be transported offsite by sediments carried by runoff. These would concentrate in stream sediments rather than in surface water. Though NPDES permit violations are documented, they are infrequent.

The potential for impact to groundwater would be minimal due to the nature of possible contaminants. Oil, grease, diesel fuel, PCBs and metals all tend to adhere to soil particles and not migrate through the soil matrix.

The only possible impact to air quality would be the volatilization of diesel fuel, particularly after a spill. However, no spills are documented. Oil, grease, PCBs and metals all tend not to threaten air quality.

Oil, grease, and diesel fuel are all skin irritants. However, the threat of direct contact to PCBs and metals is greater because the effects are more severe and long-lasting. (5, 7, 8, 12)

F) POSSIBLE AFFECTED POPULATION AND RESOURCES

A house count is not attempted in this preliminary assessment. However, a three mile radius around the site would encompass the entire City of Louisville, which has a population of about 7,800. Including residents who live outside the city limits but inside the three mile radius, the total population inside the three mile radius is certainly higher. (3)

The city has five public wells within a single field, located about 1/4 mile from the site boundary. All of these wells are 300 - 400 feet deep and draw from the Lower Wilcox aquifer. There are no rural water association wells within a three mile radius. (3, 6)

Lake Tiak O'Khata, a local resort area, is about 1 1/2 miles from the site. It would not appear to be affected by surface water discharges from the site.

G) GEOLOGY

The site is located on an outcrop of the Middle Wilcox formation. This formation is about 250 feet thick below the site and consists of marls, clays, and sands. The Meridian-Upper Wilcox formation, a major aquifer in the state, crops out southwest of the site in a northwest-southeast band. The Lower Wilcox aquifer, another significant water-bearing zone, crops out northeast of the site, also in a northwest-southeast band. It is about 150 feet thick below the site. Recharge is from rainfall on the outcrops. The formation dips to the southwest, and groundwater flow is generally in this direction. However, it may be influenced locally by pumpage. All of Louisville's public wells are in this zone.

Below the Wilcox is the Midway group. The Porter's Creek formation of this group is a 600 feet thick clay confining bed and hydraulically isolates the Lower Wilcox Aquifer from lower aquifers. Also in the Midway group is the Clayton formation, a 30 feet thick formation that is not an aquifer.

Beneath the Wilcox group is the Selma group. The Selma, as a whole, is 800 - 1000 feet thick. In it are the Ripley formation and the Coffee Sand, which are smaller aquifers. Upper chalk formations of the Selma overlie the Ripley. Between the Ripley and the Coffee are the Demopolis chalk and the lower transitional clays of the Ripley. Below the Coffee are the Mooresville chalk and the Arcola Limestone. The Ripley and the Coffee are used as aquifers only well north of the site area.

Below the Selma are the Eutaw and McShan formations which together form the Eutaw-McShan Aquifer system. The top of the Eutaw is about 2000 feet below ground level. The entire system is about 500 feet thick.

Below the Eutaw-McShan is the Tuscaloosa group. The Gordo and the Coker formations comprise the Tuscaloosa, and both contain significant water-bearing zones. Below the Tuscaloosa is the Lower Cretaceous series, and below that is the Paleozoic series. (9, 10, 11)

H) RECOMMENDATIONS

There was not enough information gathered during the preparation of this preliminary assessment to assign a "No Further Action" rating to the site. It is not believed that there is any significant environmental problems at this site. However, due to the large target population and the proximity to the city wells, a closer examination of this site needs to be taken in order to confirm this. Therefore, the State rates Illinois Central Gulf/Louisville site as a "Low" priority site for a site investigation.

References

- 1) Conversation with Bob Strong of Illinois Central, phone log, 12/21/87.
- 2) Conversation with Peter Terrell of Gulf and Mississippi Railroad, phone log, 12/28/87.
- 3) Conversation with Tommy Kirkpatrick of Louisville Department of Public Works, phone log, 12/29/87.
- 4) Record of conversation with Richard Ball of MSBPC, 3/16/88.
- 5) Copy of NPDES Discharge Permit for ICG/Louisville.
- 6) U.S.G.S. Well log printout of Winston County, Mississippi.
- 7) Sittig, Marshall, Handbook of Toxic and Hazardous Chemicals and Carcinogens, second edition, Noyes Publications, Park Ridge, New Jersey.
- 8) Superfund Public Health Evaluation Manual, EPA 540/186/060, 1986.
- 9) Gandl, L. A., Characterization of Aquifers Designated as Potential Drinking Water Sources in Mississippi, U.S.G.S. Water Resources Investigation Open-File Report 81-550, 1982.
- 10) Mellen, Frederic Frances, Mississippi State Geological Survey Bulletin 38, Winston County Mineral Resources, 1939.
- 11) Taylor, R. E. and Thomson, F. H., Water For Industrial Development in Kemper, Leake, Neshoba, Noxubee, and Winston Counties, Mississippi, U.S.G.S. Water Resources Division and Mississippi Research and Development Center, 1972.
- 12) U.S.G.S. Topographic Maps, 7.5 Minute Series; Betheden, Boon, Louisville South and Louisville North Quadrangles.

NUS CORPORATION AND SUBSIDIARIES**TELECON NOTE**

Reference No. 6

CONTROL NO.
F4-8809-02

DATE: April 4, 1989

TIME: 1440

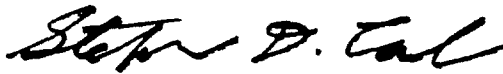
DISTRIBUTION:File
Illinois Central Gulf

BETWEEN: Joyce Kirkpatrick

OF: City Clerk Louisville, MS

PHONE: (601) 773-9201

AND: Steve Cash, NUS Corporation

**DISCUSSION:**

Ms. Kirkpatrick stated the city of Louisville contains 16 square miles with a population of 7383 persons, according to the 1980 census. Manufacturing is the main employer with the Total Machine Works as the largest employer with 650 persons. Both Georgia Pacific and TRW are the next largest employers and employees 574 persons each. In the city limits, there are three public schools and one private school. The public schools are the Louisville Elementary Jr. High and High School. Outside the city limits, residents either commute into Louisville to work or are engaged in agriculture. The major crops grown in the area are corn, cotton, soybeans and the raising of dairy cattle. Persons in the area reside in single-family residences. There is one nearby recreation area, Lake Tia O Khata and it is privately owned.

ACTION ITEMS:

R-586-12-9-9

2551

**FINAL REPORT
SCREENING SITE INSPECTION, PHASE II
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, WINSTON COUNTY, MISSISSIPPI
EPA ID #: MSD000773564**

Prepared Under
TDD No. F4-8809-02
CONTRACT NO. 68-01-7346

Revision 0

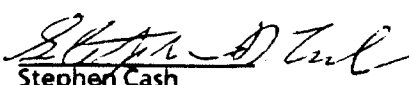
FOR THE

WASTE MANAGEMENT DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

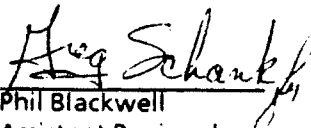
DECEMBER 7, 1989

NUS CORPORATION
SUPERFUND DIVISION

Prepared By


Stephen Cash
Project Manager

Reviewed By


Phil Blackwell
Assistant Regional
Project Manager

Approved By


Murray Warner, P.E.
Regional Project Manager

Approved
NFRAP
BAJ
12/19/89

NOTICE

The information in this document has been funded wholly by the United States Environmental Protection Agency (EPA) under Contract Number 68-01-7346 and is considered proprietary to the EPA.

This information is not to be released to third parties without the expressed or written consent of the EPA.

TABLE OF CONTENTS

<u>Section No.</u>	<u>Page No.</u>
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION	1
1.1 Objectives	1
1.2 Scope of Work	1
2.0 SITE CHARACTERIZATION	3
2.1 Site Background and History	3
2.2 Site Description	3
2.2.1 Site Features	3
2.2.2 Waste Characteristics	6
3.0 REGIONAL POPULATIONS AND ENVIRONMENTS	7
3.1 Population and Land Use	7
3.1.1 Demography	7
3.1.2 Land Use	7
3.2 Surface Water	7
3.2.1 Climatology	7
3.2.2 Overland Drainage	8
3.2.3 Potentially Affected Water Bodies	8
3.3 Regional Aquifer Characteristics	8
3.3.1 Aquifer Description	8
3.3.2 Aquifer Use	9
3.4 Summary of Potentially Affected Populations and Environments	10
4.0 FIELD INVESTIGATION	11
4.1 Sample Collection	11
4.1.1 Sample Collection Methodology	11
4.1.2 Duplicate Samples	11
4.1.3 Description of Samples and Sample Locations	11
4.2 Sample Analysis	15
4.2.1 Analytical Support and Methodology	15
4.2.2 Analytical Data Quality	15
4.2.3 Presentation of Analytical Results	16
5.0 SUMMARY	24
REFERENCES	26
APPENDIX A Site Inspection Report	
APPENDIX B Map of 4-Mile Site Radius	
APPENDIX C Analytical Results	

TABLE

<u>Number</u>		<u>Page No.</u>
Table 1	Sample Codes, Descriptions, and Field Measurements	13
Table 2	Inorganic Analyses - Surface and Subsurface Soil Samples	17
Table 3	Inorganic Analyses - Sediment Soil Samples	18
Table 4	Organic Analyses - Surface and Subsurface Soil Samples	19
Table 5	Organic Analyses - Sediment Soil Samples	21
Table 6	Inorganic Analyses - Groundwater Samples	22

FIGURES

<u>Number</u>		<u>Page No.</u>
Figure 1	Site Location Map	4
Figure 2	Site Layout Map	5
Figure 3	Sample Location Map	12

EXECUTIVE SUMMARY

The Illinois Central Gulf Railroad facility is located in Louisville, Winston County, Mississippi. The current owner of the property is the South Rail Corporation, a subsidiary of the Mid South Corporation. The site is located in a railroad yard, which has been in existence for 75 to 100 years. In 1978, a fueling and service center was constructed where locomotives are supplied with diesel fuel and serviced. In addition, the diesel locomotives are occasionally washed.

When the fueling and service center was constructed, an oil collection system was installed to collect oil spilled during the servicing of locomotives. This oil collection system is a series of in-ground grates that collects surface runoff in an underground oil and water separator. The oil remains in the underground separator to be pumped out at a later time, while the water is discharged into a nearby ditch via an underground pipe. The facility has a NPDES permit to discharge into the ditch.

At the time of construction of the fueling and service station, several areas of oil-contaminated soil were removed. The contaminants that were most likely present in the soil are diesel fuel and lubricants, of which heavy metals and numerous hazardous organic materials could be constituents, and solvents used for degreasing of locomotive parts. The American Creosote Company was formerly located adjacent to the Illinois Central Gulf facility and produced creosote at the plant. EPA conducted a remedial action at American Creosote to remove contaminants.

The facility is located in the Mississippi Embayment of the Atlantic Coastal Plain Physiographic Province in central Mississippi. The aquifer of concern, the lower Wilcox aquifer, is the main water-producing aquifer within the 4-mile site radius. Thick beds of clay separate the middle Wilcox aquifer from the lower Wilcox aquifer, forming a confining layer.

The city of Louisville has five municipal wells, which are located one-half mile to the south of the Illinois Central Gulf facility. These wells range in depth from 260 to 400 feet below land surface and draw water from the lower Wilcox aquifer. Within a 4-mile radius of the site, residents obtain water from the Louisville Municipal system or one of four rural water associations.

The rural water associations obtain groundwater from wells located outside the 4-mile radius study area. All residents inside the city of Louisville are connected to the municipal system, and there is no

known use of private wells. Residents outside the city limits have access to either the Louisville system or one of the four rural water associations, and use of private wells for potable water is limited.

Analytical results for soils show the solvent tetrachloroethane and its degradation products, and toluene in onsite soils but not in background samples. Migration of solvents off site does not appear to be occurring. Solvents were not detected in soils of the drainage ditch located offsite. The presence of many polynuclear aromatic hydrocarbons (PNAs) were detected, in addition to the presumptive evidence of petroleum products in soil samples. Those compounds cannot be attributed to site practices. The American Creosote Company, formerly located adjacent to the site, produced creosote. Many of the PNAs found in the soil samples are constituents of creosote. Railroad ties located in the rail yard are also a probable source of creosote. PNAs were detected in the background sediment soil sample, located upgradient of the site, indicating the site is being influenced by offsite conditions.

Inorganic analysis showed lead to be above background values at two onsite locations, including the drainage ditch. Lead does not appear to be migrating offsite since lead was not found in downgradient soil of the drainage ditch. Analytical results of a municipal water sample did not show elevated levels of organic or inorganic constituents.

The only pathways of concern for this facility are the air and onsite exposure pathways. The presence of contaminated surface soils was confirmed by this investigation. However, the population within 1 mile of the site is only 411. PNAs are relatively insoluble in water, migration into the groundwater unlikely and the aquifer of concern is protected by thick beds of clay. Therefore, FIT 4 recommends that no further remedial action be planned for Illinois Central Gulf Railroad.

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) was tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a screening site inspection (SSI) at the Illinois Central Gulf Railroad site in Winston County, Mississippi. The investigation was performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task was performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8809-02. The field investigation was conducted during the period of October 10-12, 1988.

1.1 OBJECTIVES

The objectives of this investigation were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this investigation sought to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Through these objectives, a recommendation was made regarding future activities at the site.

1.2 SCOPE OF WORK

The objectives were achieved through the completion of a number of specific tasks. These activities were to:

- obtain and review relevant background materials;
- obtain aerial photographs and maps of site;
- obtain information on local water systems;
- evaluate populations and environments potentially affected via the groundwater, surface water, and onsite exposure pathways;

- determine location and distance to nearest potable well;
- develop a scaled facility map;
- collect 11 environmental samples of soil and groundwater; and
- complete a Site Inspection Report, provided as Appendix A in this report.

2.0 SITE CHARACTERIZATION

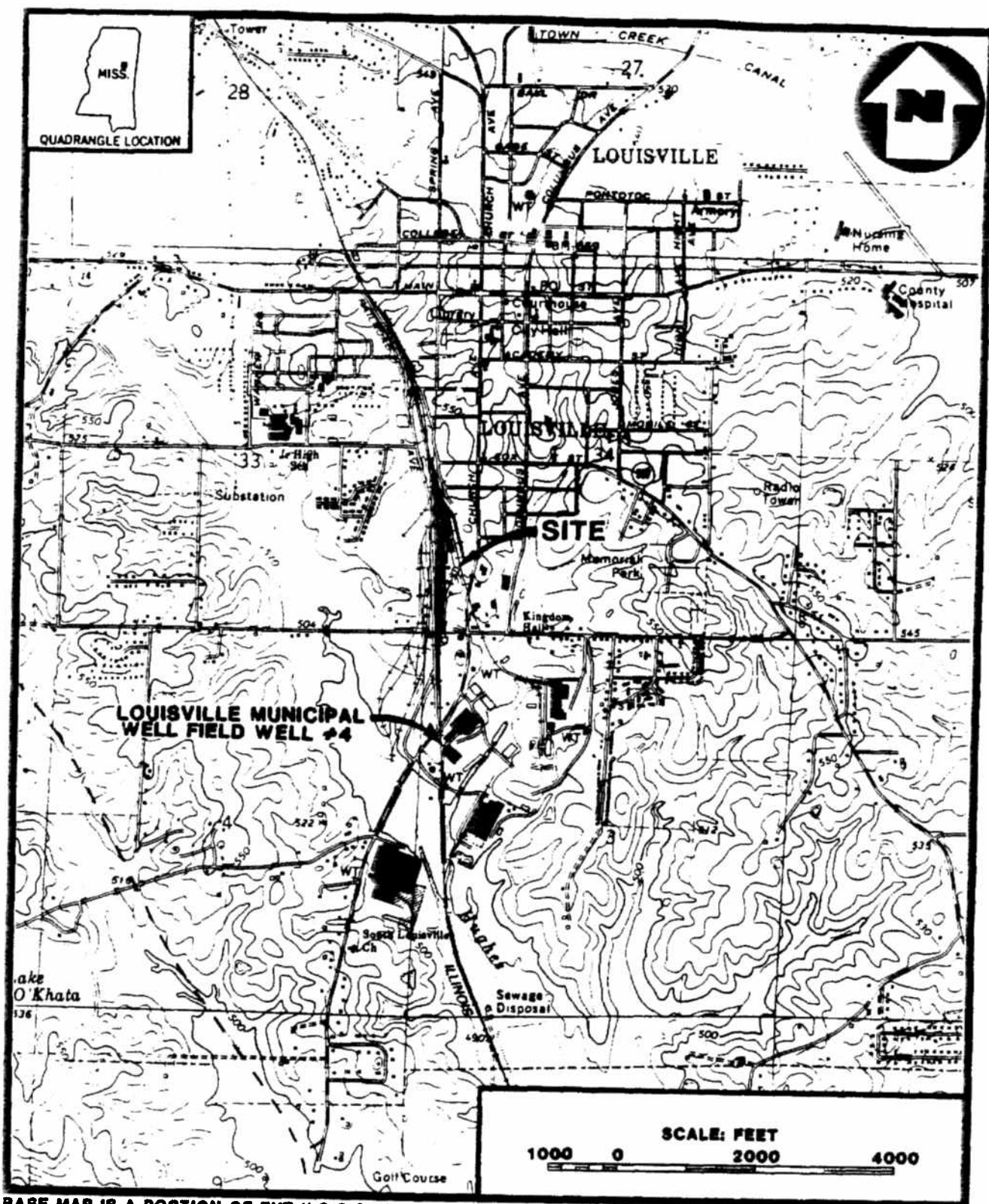
2.1 SITE BACKGROUND AND HISTORY

The Illinois Central Gulf Railroad facility is located west of Highway 15 on the southern edge of the city of Louisville, Winston County, Mississippi. The site location is shown in Figure 1. The facility is operated as a fueling and service center for diesel locomotives. The locomotives are provided with diesel fuel, mechanically serviced and are occasionally washed. The rail yard in which the fueling center is located has been in existence for 75 to 100 years. Before 1978, the site contained a turntable track system, where locomotives could be switched to different tracks. In 1978, the fueling station was constructed, along with an oil collection system to contain oil and fuel spilled during servicing. At that time, the turntable track system was removed along with surface soils contaminated with oils (Ref. 1, pp. 2-4). The facility currently has a NPDES permit to discharge water collected in the oil/water separator into a nearby ditch (Ref. 2). The facility has changed ownership several times in recent years. Illinois Central Gulf Railroad was sold to Gulf and Mississippi Railroad in 1985, and in 1987 the South Rail Corporation, the current owner, purchased the property. South Rail is a subsidiary of the Mid South Corporation (Ref. 1, p. 3).

2.2 SITE DESCRIPTION

2.2.1 Site Features

The Illinois Central Gulf Railroad facility is located in a rail yard in the city of Louisville, Mississippi. The site layout is shown in Figure 2. The facility lies along the main railroad tracks, which run in a north-south direction. The main tracks consist of about eight separate lines. These main railroad tracks mark the western boundary of the fueling and service facility and Highway 15 roughly forms the boundary to the east. The site contains a service area with a rail line where locomotives can be refueled. The service area also contains a concrete pit so the locomotives can be serviced from below. Diesel fuel is contained in a 23,000-gallon fuel tank located to the west of the service area and is pumped through an underground pipe to the service area. A 6000-gallon lube oil tank is also located there, and both are diked by a concrete wall. Adjacent to the south end of the service area is a steel tank containing sand. The sand is loaded onto the locomotives to be used for rail traction. Next to the sand tank is a square concrete pad containing two manholes. This pad covers the

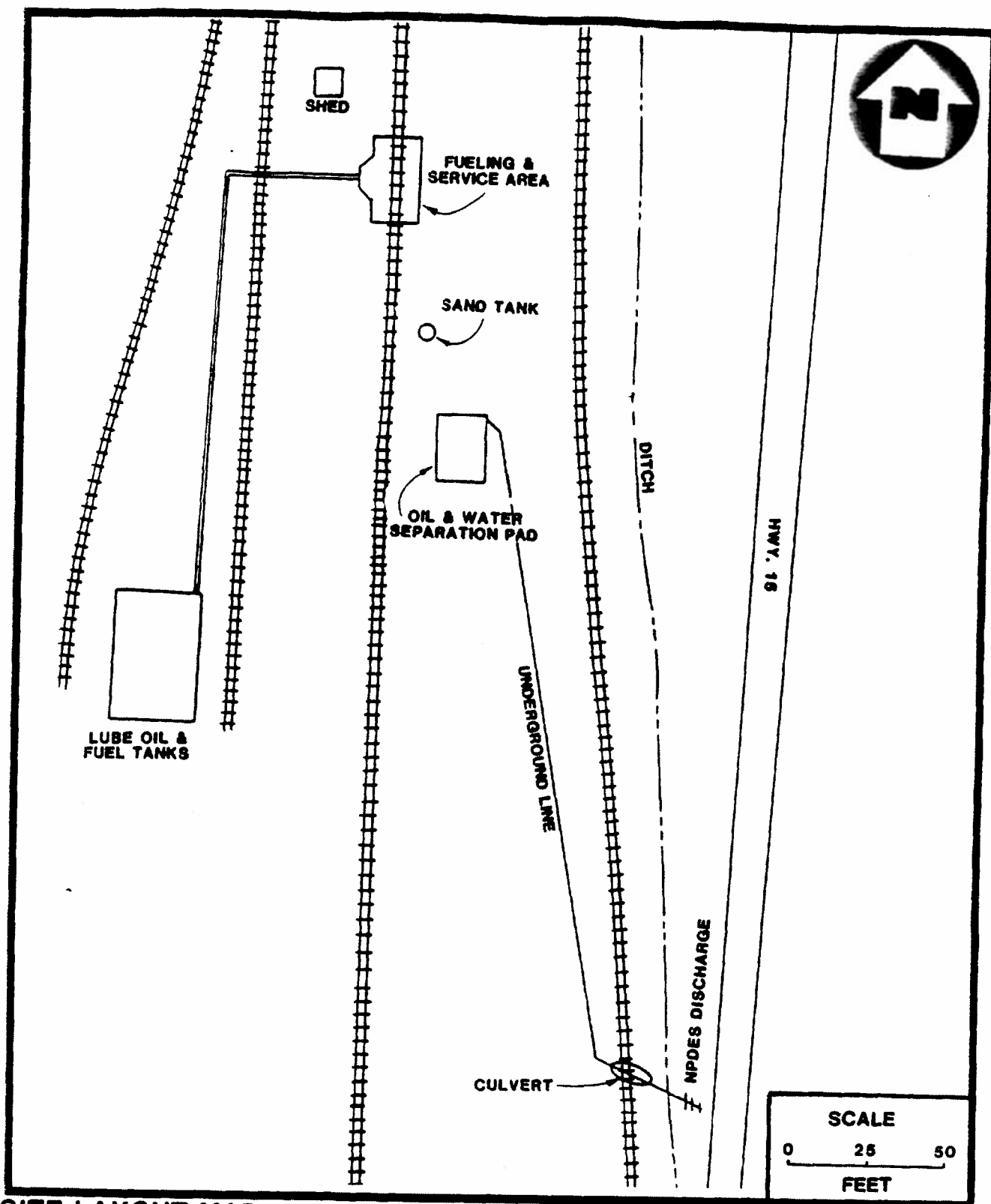


BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE QUADRANGLE LOUISVILLE NORTH 1972, LOUISVILLE SOUTH 1972, MISSISSIPPI.

SITE LOCATION MAP

ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, WINSTON COUNTY, MISSISSIPPI

FIGURE 1



**SITE LAYOUT MAP
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, WINSTON COUNTY, MISSISSIPPI**

FIGURE 2

underground oil and water separator and the sampling and metering station for the NPDES-permitted discharge. An underground pipe leads from the oil and water separator, travels south and east under the railroad tracks, and empties into a ditch via a concrete culvert. This ditch lies between railroad tracks and Highway 15 and flows southward. Highway 15 and the railroad tracks cross to the south, and the drainage ditch passes under the highway via a culvert. The ditch drains into Hughes Creek one-half mile to the south. The site is not enclosed by a fence and access could be obtained. The American Creosote Company was formerly located directly across the main tracks to the west of the site. American Creosote is no longer an active facility (Ref. 3).

2.2.2 Waste Characteristics

In 1978, when the oil and water collection system was installed, surface soils contaminated with oil were removed to a depth of approximately 8 inches. The area of soil removal was west of the oil water separator around the railroad track. In addition, soil from a drainage path leading east from the service area to the ditch was removed, as well as soil from the ditch, to a point past the current NPDES discharge point (Ref. 4).

File material does not indicate any storage or disposal of hazardous materials at the site. The most likely contaminants would be diesel fuel and lubricants spilled during servicing. Oil collected in the underground oil/water separator is pumped out and disposed of off site at two-year time intervals (Ref. 1, pp. 5-6). Other contaminants that possibly could be present would include PCBs, which were used for a period of time in the electrical systems of diesel locomotives, and lead from batteries used in the locomotives. Industrial solvents used for cleaning could possibly be present as well (Ref. 5). Remedial action was taken by EPA at the American Creosote Company when the facility was still in operation. Reportedly, Hughes Creek was polluted by contaminants from American Cresote (Ref. 3). Due to American Creosote's proximity to Illinois Gulf Control Railroad, it is possible this site could have been influenced by conditions at American Creosote.

3.0 REGIONAL POPULATIONS AND ENVIRONMENTS

3.1 POPULATION AND LAND USE

3.1.1 Demography

Within a 4-mile radius of the Illinois Central Gulf Railroad facility, both the city of Louisville and rural areas are present. Manufacturing is the town's main industry, with Total Machine Works, Georgia Pacific and TRW being Louisville's largest employers. Within the 4-mile radius of the site there are four schools, Louisville Elementary, Junior High, and High School, as well as a private school (Ref. 6). Louisville Junior High is the closest school at 0.75 mile in distance from the site (Appendix B). The total population, obtained from 1980 census data, within the 4-mile radius is 7273 residents. Within a 1-mile radius of the site, there are 441 residents (Ref. 7).

3.1.2 Land Use

The area surrounding the Illinois Central Gulf Railroad facility, outside the city limits of Louisville is mostly rural containing single-family residences and small farms. Those persons who do not commute into the city of Louisville to work in manufacturing are engaged in agriculture. Dairy cattle are raised and the crops grown in the area are corn, cotton, soybeans. Lake Tiak-O'Khata is the only recreational area within the 4-mile radius and is located approximately 1.5 miles to the southwest of the site. Lake Tiak-O'Khata is privately owned and is used as a vacation and conference center (Ref. 6). Lake Tiak-O'Khata is not under the influence of the site via any potential migration routes.

3.2 SURFACE WATER

3.2.1 Climatology

Winston County has a temperate climate; the summers are generally warm and humid, and winters are moderately cold. Annual precipitation averages 51 inches. Annual free water evaporation from shallow lakes and ponds averages 43 inches, making the net precipitation approximately 8 inches (Ref. 8).

3.2.2 Overland Drainage

Surface water runoff from the site would drain into a series of storm grates around the fueling and service facility and be collected in the underground oil and water separator system. The runoff water would then travel through an underground pipe to an unnamed ditch to the west of the facility and be discharged (Ref. 1, pp. 3-4). This ditch travels south along Highway 15 for approximately one-half mile before joining Hughes Creek. Hughes Creek also flows south for approximately 7.5 miles before it joins Tallahaga Creek. The slope of the intervening terrain from the point of the service center to surface water is 1 percent (Appendix B).

3.2.3 Potentially Affected Water Bodies

Both the Hughes and Tallahaga Creeks could be potentially affected by contaminants carried by surface water runoff from the Illinois Central Gulf Railroad facility. Hughes Creek is not used for recreation due to pollution in the past from a nearby creosote plant; however, Tallahaga Creek is used for recreational fishing. The U.S. Soil Conservation Service has plans to channelize this portion of the Tallahaga Creek, thereby eliminating this fishing area. One irrigation system obtains its water from Hughes Creek, approximately 8 miles south of Louisville. Within 15 stream miles from the facility, there are no surface water intakes used for public drinking water supplies. There are no known sensitive environments or endangered species in the study area (Ref. 15, Appendix B).

3.3 REGIONAL AQUIFER CHARACTERISTICS

3.3.1 Aquifer Description

The site is located in the Mississippi Embayment of the Atlantic Coastal Plain Physiographic Province in central Mississippi. About 10% of the recharge to groundwater is through direct precipitation. Additional recharge occurs through the infiltration of surface water into the aquifers (Ref. 9, p. 269). Louisville lies within the Pearl River drainage basin.

The underlying formations, of Tertiary age, are, in descending order: the Bashi Marl Member, Tusahoma Formation, Nanafalia Formation, and Fearn Springs Member of the Wilcox Group; and the Naheola Formation, Porters Creek Clay, and Clayton Formation of the Midway Group. The Porters Creek Clay (between 470 and 810 feet thick) and the Clayton Formation (between 20 and 50 feet thick) act as confining units, along with the underlying Cretaceous age Owl Creek Formation, that

restrict the migration of water from the overlying Tertiary aquifers into the Cretaceous formations below (Ref. 10, p. 3).

The Bashi Marl Member and Tusahoma Formation form the Middle Wilcox aquifer. The Bashi Marl is a glauconitic sand containing large calcareous, fossiliferous concretions. The irregular sand beds of the Tusahoma Formation are the water-bearing units of the Middle Wilcox aquifer. Small to moderate yields are obtained from a few community and domestic wells (Ref. 12, p. 33). The aquifer is up to 310 feet thick in the immediate vicinity of the site (Ref. 11, pp. 42, 46). Thick beds of clay separate the Middle Wilcox aquifer from the Lower Wilcox aquifer (Ref. 12, p. 66).

The Lower Wilcox aquifer is comprised of the Nanafalia, Fearn Springs, and Naheola formations. The Nanafalia is a fossiliferous marl with basal sand beds. The Fearn Springs Member is composed of irregular beds of fine to coarse sand, lignitic clay and bauxite, and the Naheola Formation is composed of fine to coarse micaceous sand, kaolin and bauxitic clay. Moderate to large yields are obtained from wells in this aquifer (Ref. 11, p. 8). In Winston County the aquifer is 285 feet thick (Ref. 11, p. 41). Transmissivity values of the Lower Wilcox aquifer in the Louisville area are greater than 10,000 ft.²/day; about 1 million gallons per day (gpd) are pumped from the aquifer here (Ref. 12, p. 68). Several public supply wells, ranging from 204 to 447 feet deep, tap the Lower Wilcox aquifer near the site (Ref. 11, p. 42, 46).

The Porters Creek Clay confining unit is a dark gray clay, slightly glauconitic with micaceous sand lenses. Along with the greenish-gray, sandy clay and marl of the Clayton Formation and the blue, glauconitic sandy clay of the Owl Creek Formation, the Porters Creek Clay forms a confining layer. This layer can be from 600 to 2000 feet thick in the Louisville area (Ref. 5; Ref. 11, p. 33).

3.3.2 Aquifer Use

The city of Louisville and the areas immediately adjacent to the city limits are served by the Louisville municipal water system. The system obtains its water from five wells which range in depth from 260 feet to 400 feet below land surface. The closest municipal well is located approximately one-quarter mile to the south of the Illinois Central Gulf facility. In addition to the Louisville Municipal Water System, four rural water associations supply water to residents inside the 4-mile radius study area. These water associations are the Flower Ridge, Calvary Water, Highpoint and Bond water system and all obtain groundwater from wells outside the 4-mile radius area (Ref. 1). All residents inside the city of Louisville are connected to the municipal system, and there is no known use of private wells (Ref. 13).

Residents outside the city limits have access to either the Louisville system or one of the four rural water associations, and use of private wells for potable water is very limited. The Louisville system supplies water to approximately 7800 residents (Refs. 13, 14).

3.4 SUMMARY OF POTENTIALLY AFFECTED POPULATIONS AND ENVIRONMENTS

There are two pathways of concern for the facility: the air and onsite exposure pathways. Potential for site-related contaminant release to the surface water pathway is not a concern due to the lack of potentially affected populations and environments. The groundwater pathway is also not a concern due to confining beds of clay overlying the aquifer from which municipal water is drawn.

The air and onsite exposure pathways are of concern due to the presence of uncontained, contaminated soils. Potentially affected targets within a 4-mile radius include students, employees and residents. The population of residents within 4-miles of the site is estimated at 7273. Targets for onsite exposure include 441 residents located within a 1-mile radius of the site (Ref. 7).

4.0 FIELD INVESTIGATION

4.1 SAMPLE COLLECTION

4.1.1 Sample Collection Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

4.1.2 Duplicate Samples

Duplicate samples were offered to Mr. Jerry Weeks, the representative of Mid South Corporation. Mr. Weeks declined the duplicate samples. Receipt for sample forms are on file at FIT 4.

4.1.3 Description of Samples and Sample Locations

The sampling investigation consisted of the collection of three surface soil samples, three subsurface soil samples, four sediment samples, and one municipal well sample. Samples were collected on October 11 and 12, 1988. Sample locations are shown in Figure 3 and sample codes and descriptions are given in Table 1. Background surface and subsurface soil samples (IG-SS-01 and IG-SB-04) were taken from one location in a large field near the intersection of Cagle Street and Railroad Avenue. These soils were collected off site and were in an area that appeared to not have been influenced by site conditions. Surface and subsurface soil samples (IG-SS-02 and IG-SB-05) were collected adjacent to the fueling station where locomotives are serviced. An additional set of paired surface and subsurface soil samples (IG-SS-03 and IG-SB-06) were collected adjacent and to the east of the fueling and service station, north of the sand tank. These samples were collected to establish the presence or absence of contaminants.

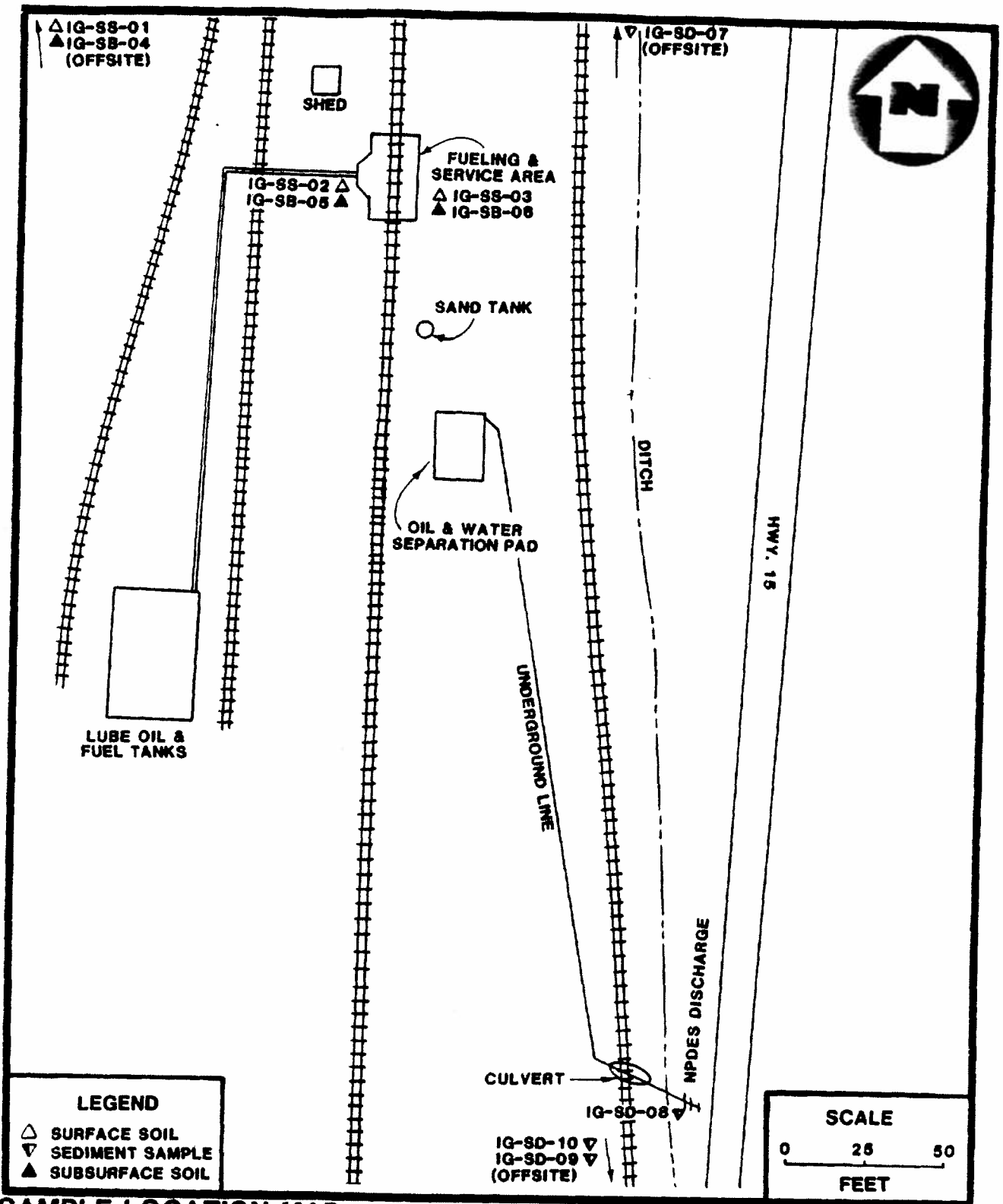


FIGURE 3

TABLE 1

**SAMPLE CODES, DESCRIPTIONS, AND FIELD MEASUREMENTS
SURFACE SOIL, SUBSURFACE SOIL AND SEDIMENT SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, WINSTON COUNTY, MISSISSIPPI**

Sample Code (IG)	Description/Location	Date (1988)	Time
SS-01	A surface soil sample collected from a field off site at the intersection of Cagle Street and Railroad Avenue. This sample was collected to establish background conditions.	10/11	1055
SS-02	A surface soil sample collected at the locomotive fueling station.	10/11	1615
SS-03	A surface soil sample collected from the east side of the fueling station, north of the sand tank.	10/11	1715
SB-04	A subsurface soil sample collected 3 feet below land surface (bls) at the same location as IG-SS-01. This sample was collected to establish background conditions.	10/11	11/10
SB-05	A subsurface soil sample collected at the same location as IG-SS-02. The sample was collected 3 feet below land surface (bls).	10/11	1630
SB-06	A subsurface soil sample collected at the same location as IG-SS-02. The sample was taken 3 feet below land surface (bls).	10/11	1730
SD-07	A sediment soil sample collected from the drainage ditch, 350 feet upgradient of the NPDES discharge. This sample was taken to establish background conditions.	10/11	1420
SD-08	A sediment soil sample collected from a drainage ditch where the NPDES discharge occurs. The ditch drains to the south between Highway 15 and railroad tracks. The sample was collected 5 feet downgradient from the discharge point of the oil and water separator.	10/11	1320
SD-09	A sediment soil sample collected from the drainage ditch downgradient of the discharge point. The sample was collected at a location before the ditch passes under Highway 15 via a culvert.	10/11	1320
SD-10	A sediment soil sample collected from the ditch, downgradient of the discharge point. The sample was collected midway between the point of discharge and the intersection of the ditch with Highway 15.	10/11	1500

IG - Illinois Central Gulf Railroad
SS - Surface Soil Sample
SB - Subsurface Soil Sample
SD - Sediment Sample
PW - Potable Well Sample

TABLE 1, continued

**SAMPLE CODES, DESCRIPTIONS, AND FIELD MEASUREMENTS
GROUNDWATER SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, WINSTON COUNTY, MISSISSIPPI**

Sample Code (IG)	Description/Location	Date (1988)	Time	pH	Temp. (°C)	Conductivity (umhos/cm)
PW-11	A groundwater sample collected from well No. 4 at the city of Louisville's municipal wellfield, located one-quarter mile south of the site. The depth of the well is 260 feet below land surface.	10/12	1000	6.0	19	140

IG - Illinois Central Gulf Railroad
SS - Surface Soil Sample
SB - Subsurface Soil Sample
SD - Sediment Sample
PW - Potable Well Sample

One sediment sample (IG-SD-07) was collected from a drainage ditch where wastewater from the oil and water separator is discharged. The sample was collected 75 feet upgradient of the discharge point to establish background conditions in the ditch. Three sediment samples were collected in the drainage ditch downgradient of the discharge point. One sediment sample (IG-SD-08) was collected five feet downgradient of the discharge point. The second sediment sample (IG-SD-10) was collected between IG-SD-08 and where the ditch passes under Highway 15. The third sediment sample (IG-SD-09) was collected immediately before the ditch passes under Highway 15. All three of these sediments were collected to establish the presence or absence of contaminants.

One public well was sampled during this investigation. The well is located in the city of Louisville wellfield, approximately one-quarter mile south of the site. The well was sampled in order to establish the presence or absence of contaminants in the groundwater.

4.2 SAMPLE ANALYSIS

4.2.1 Analytical Support and Methodology

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL). Organic analysis of soil and water samples was performed by Environmental Monitoring and Services (EMS) of Camarillo, California. Inorganic analysis of soil and water was performed by Cambridge Analytical Associates of Boston Maine.

All laboratory analyses and laboratory quality assurance procedures used during this investigation were in accordance with standard procedures and protocols as specified in the Analytical Support Branch Operations and Quality Assurance Manual, United States Environmental Protection Agency, Region IV, Environmental Services Division, revised June 1, 1985; or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

4.2.2 Analytical Data Quality

All analytical data were subjected to a quality assurance review as described in the EPA Environmental Services Division laboratory data guidelines. In the tables, some of the concentrations of the organic and inorganic parameters have been flagged with a "J". This indicates that the qualitative analysis was acceptable, but the quantitative value has been estimated. A few other compounds are flagged with an "N" indicating that they were detected based on the presumptive

evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as positive identification to its presence. The complete analytical data sheets are presented in Appendix C.

4.2.3 Presentation of Analytical Results

Analytical results for surface and subsurface soils show the presence of numerous purgeable, extractable and unidentified compounds, as well as the presumptive evidence for petroleum products. The inorganic analytical results are presented in Table 2 through 5, and the organic analytical results are presented in Table 6.

One set of paired surface and subsurface soil samples (IG-SS-02, IG-SB-05) located adjacent to the fueling and service area, showed the presence of solvents. The chlorinated solvent tetrachloroethane, its degradation products, and toluene were not detected in background soil samples but were found in onsite soil samples. The highest value found for tetrachloroethane was an estimated value of 1900 ug/kg and the highest value for toluene was an estimated 560 ug/kg at the surface soil location IG-SS-02. The other set of paired surface and subsurface soil samples located on site did not show the presence of the chlorinated solvents, although toluene was found at a value of 170 ug/kg in the subsurface soil. Tetrachloroethene and toluene are commonly used degreasers and it is probable that these solvents are used to degrease locomotives when they undergo servicing.

Analysis of sediment soils taken from the drainage ditch did not indicate solvents are migrating off site. Neither tetrachloroethene or its degradation products were found in any of the sediment soils taken from the ditch. Toluene was found to be present in only the background sample. Xylenes were found at the NPDES discharge point, but not in any other downgradient sediment samples. Toluene was not detected in any other downgradient sediment sample.

All surface, subsurface and sediment samples showed the presence of many extractable compounds. Polynuclear aromatic hydrocarbons (PNAs), the presumptive evidence of petroleum products, and numerous unidentified compounds were found. Most of the extractable compounds are associated with coal-tar creosote, which is used to preserve railroad ties.

The mobility of polynuclear aromatic hydrocarbons in the environment is low and migration is unlikely. PAHs are relatively insoluble in water and are strongly adsorbed onto suspended particulate matter, especially particulates high in organic content. It is likely these compounds accumulate in sediments and that that adsorption to sediments is the dominant aquatic means of transport (Ref. 16).

TABLE 2
SUMMARY OF INORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI

PARAMETERS (mg/kg)	Background		Onsite			
	IG-SS-01	IG-SB-04	IG-SS-02	IG-SB-05	IG-SS-03	IG-SB-06
ALUMINUM	5000	9400	3700	4600	2000	13,000
ANTIMONY	-	-	-	3J	2.7J	-
ARSENIC	2.4J	-	21J	3J	4.5J	3.3J
BARIUM	23	17	91	57	28	34
CALCIUM	1100	820	660	790	930	170
CHROMIUM	5.4J	3.3J	33J	58J	8.5J	31J
COBALT	-	9.4	-	12	-	11
COPPER	7.6	3.2	74	22	17	8.9
IRON	9000J	21,000J	43,000J	27,000J	8800J	31,000J
LEAD	33	-	170	24	51	8.7
MAGNESIUM	260	350	270	180	420	310
MANGANESE	88	33	78	63	160	25
NICKEL	-	5.9	9.8	-	-	-
POTASSIUM	260	290	580	370	170	290
SELENIUM	-	-	2.1	-	-	-
SODIUM	-	-	140	-	-	-
VANADIUM	15J	4.6J	39J	38J	32J	46J
ZINC	33	14	50	34	100	26
CYANIDE	-	-	-	-	1.3J	-

- Material analyzed for but not detected above minimum quantitation limit
J Estimated value

TABLE 3

**SUMMARY OF INORGANIC ANALYTICAL RESULTS
SEDIMENT SOIL SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI**

PARAMETERS (mg/kg)	Background	Drainage Ditch		
	IG-SD-07	IG-SD-08	IG-SD-09	IG-SD-10
ALUMINIUM	17,000	4900	20,000	8000
ANTIMONY	-	5.3J	4.6J	6.1J
ARSENIC	17J	9.6J	9.7J	7.4J
BARIUM	42	82	82	43
CALCIUM	1200	2100	3500	840
CHROMIUM	18J	16J	27J	12J
COBALT	-	-	-	-
COPPER	12	230	150	130
IRON	18,000J	22,000J	21,000J	16,000J
LEAD	30	1300	150	230
MAGNESIUM	810	530	1300	480
MANGANESE	37	240	78	60
NICKEL	-	-	13	13
POTASSIUM	700	280	750	420
SELENIUM	-	-	-	-
SODIUM	-	730	-	-
VANADIUM	31J	23J	30J	18J
ZINC	46	210	160	76
CYANIDE	-	-	-	-

- Material analyzed for but not detected above minimum
quantitation limit
J Estimated value

TABLE 4

**SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI**

PARAMETERS (ug/kg)	Background		Onsite			
	IG-SS-01	IG-SB-04	IG-SS-02	IG-SB-05	IG-SS-03	IG-SB-06
PURGEABLE COMPOUNDS						
1,1-DICHLOROETHENE	-	-	28J	3J	-	-
1,1-DICHLOROETHANE	-	-	-	3J	-	-
1,1,1-TRICHLOROETHANE	-	-	1500J	190	-	-
TETRACHLOROETHENE	-	-	1900J	200	-	-
TOLUENE	-	-	560J	-	-	170
TOTAL XYLENES	-	-	-	-	-	-
EXTRACTABLE COMPOUNDS						
NAPHTHALENE	-	-	1500J	210J	180J	220J
2-METHYLNAPHTHALENE	-	-	2100J	300J	310J	540J
ACENAPHTHYLENE	-	-	-	-	100J	-
DIBENZOFURAN	-	-	600J	-	170J	300J
PHENANTHRENE	84J	-	1600J	390J	700J	580J
ANTHRACENE	-	-	-	-	75J	-
FLUORANTHENE	190J	-	670J	240J	810J	99J
PYRENE	150J	-	-	260J	700J	210J
BENZO(A)ANTHRACENE	97J	-	-	130J	340J	110J
CHRYSENE	140J	-	530J	160J	490J	130J

- Material analyzed for but not detected above minimum quantitation limit
J Estimated value
N Presumptive evidence of presence of material

TABLE 4

**SUMMARY OF ORGANIC ANALYTICAL RESULTS
SURFACE AND SUBSURFACE SOIL SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI**

PARAMETERS (ug/kg)	Background		Onsite			
	IG-SS-01	IG-SB-04	IG-SS-02	IG-SB-05	IG-SS-03	IG-SB-06
BENZO(B AND/OR K)FLUORANTHENE	-	-	-	-	-	-
BENZO-A-PYRENE	110J	-	-	-	-	-
DIMETHYLNAPHTHYLENE	-	-	-	-	-	400JN
ETHYLDIMETHYLAZULENE	-	-	-	-	-	800JN
METHYLPHENANTHRENE	-	-	-	-	-	-
METHYLPYRENE	-	-	-	-	-	-
METHYLTRIPHENYLENE	-	-	-	-	-	-
BENZOPYRENE(NOT A)	-	-	-	-	-	-
METHYLANTHRACENE	-	-	-	-	-	-
BENZOFLUORENE	-	-	-	-	-	-
BENZONAPHETHOTIOPHENE	-	-	-	-	-	-
BENZOFLUORANTHENE	-	-	-	-	-	-
DIBENZOCHRYSENE	-	-	-	-	-	-
NONYLPHENOL	-	-	-	-	-	-
TETRAMETHYLBUTYPHENOL	-	-	-	-	-	-
(DIETHYLETHANEDIYL)BISPHENOL	-	-	-	-	-	-
PETROLEUM PRODUCT	-	-	N	N	N	N
UNIDENTIFIED COMPOUNDS/NO.	3000J/3	-	20,000J/2	5000J/4	4000J/3	10,000J/6

- Material analyzed for but not detected above minimum quantitation limit
J Estimated value
N Presumptive evidence of presence of material

TABLE 5
SUMMARY OF ORGANIC ANALYTICAL RESULTS
SEDIMENT SOIL SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI

PARAMETERS (ug/kg)	Background	Drainage Ditch		
	IG-SD-07	IG-SD-08	IG-SD-10	IG-SD-09
PURGEABLE COMPOUNDS				
1,1-DICHLOROETHENE	-	-	-	-
1,1-DICHLOROETHANE	-	-	-	-
1,1,1-TRICHLOROETHANE	-	-	-	-
TETRACHLOROETHENE	-	-	-	-
TOLUENE	140	-	-	-
TOTAL XYLENES	-	780J	-	-
EXTRACTABLE COMPOUNDS				
NAPHTHALENE	230J	-	-	-
2-METHYLNAPHTHALENE	200J	4500J	-	-
ACENAPHTHYLENE	210J	-	-	-
DIBENZOFURAN	130J	-	-	-
PHENANTHRENE	1200J	3100J	2900J	1600J
ANTHRACENE	500J	-	-	-
FLUORANTHENE	7900J	-	2700J	5000J
PYRENE	6900J	1700J	2400J	3900J
BENZO(A)ANTHRACENE	4000J	-	520J	1500J
CHRYSENE	4300J	-	1200J	2500J
BENZO(B AND/OR K)FLUORANTHENE	5600J	-	-	-
BENZO-A-PYRENE	2200J	-	-	-
DIMETHYLNAPHTHYLENE	-	-	-	-
ETHYLDIMETHYLAZULENE	-	-	-	-
METHYLPHENANTHRENE	700JN	-	-	-
METHYLPYRENE	800JN	-	-	-
METHYLTRIPHENYLENE	400JN	-	-	-
BENZOPYRENE(NOT A)	4000JN	-	-	-
METHYLANTHRACENE	600JN	-	-	-
BENZOFLUORENE	1000JN	-	-	-
BENZONAPHTHETHIOPHENE	400JN	-	-	-
BENZOFLUORANTHENE	6000JN/2	-	-	-
DIBENZOCHRYSENE	2000JN/2	-	-	-
NONYLPHENOL	-	10,000JN	-	-
TETRAMETHYLBUTYPHENOL	-	1,000,000JN	-	5000JN
(DIETHYLETHANEDIYL)BISPHENOL	-	10000JN	-	9000JN/2
PETROLEUM PRODUCT	N	N	N	N
UNIDENTIFIED COMPOUNDS/NO.	4000J/2	100,000J/8	-	-

J Material analyzed for but not detected above minimum quantitation limit
J Estimated value
N Presumptive evidence of presence of material

TABLE 6

**SUMMARY OF INORGANIC ANALYTICAL RESULTS
GROUNDWATER SAMPLES
ILLINOIS CENTRAL GULF RAILROAD
LOUISVILLE, MISSISSIPPI**

PARAMETERS (ug/l)	
	IG-PW-11
BARIUM	56
CALCIUM	2800
IRON	76,000
MAGNESIUM	2100
MANGANESE	140
POTASSIUM	2100J
SODIUM	14,000
ZINC	88

J Estimated value

The American Creosote Company was located adjacent to the site and was involved in the production of creosote. The presence of PNAs in the soil and sediment samples cannot be attributed to site practices due to the influence of the creosote plant and the railroad ties located on site. Several of the PNAs were detected in the background sediment soil sample, located upgradient of the NPDES discharge point, indicating the drainage path from the site is being influenced by offsite conditions.

Inorganic analysis showed lead to be above background values at two sampling locations. Lead was 5 times above background levels in one onsite surface soil sample. One drainage ditch sample contained elevated levels of lead and was located 5 feet downgradient of the NPDES discharge. The lead does not appear to be migrating off site since lead was not found at elevated levels downgradient in the ditch.

The inorganic analytical results of the municipal well sample are presented in Table 6. The levels of inorganic constituents present are not considered to be elevated. No organic parameters were detected at all in this sample.

5.0 SUMMARY

Analysis of soils collected from the site indicate the presence of chlorinated solvents, polynuclear aromatic hydrocarbons (PNAs) and the tentative presence of petroleum products. The chlorinated solvents are commonly used as degreasing agents and probably were deposited on the soil during the servicing of locomotives.

Although analysis of soils from the site shows the presence of PNAs, the PNAs cannot be attributed to site practices. PNAs are associated with coal-tar creosote used to preserve railroad ties. Since the Illinois Central Gulf Railroad service facility is located in a railroad yard, the presence of the PNAs may be attributed to the railroad crossties. Also, the American Creosote Company was formerly located next to the site and produced creosote. Background soil samples taken upgradient from the facility contain PNAs, indicating offsite conditions may be influencing the Illinois Central Gulf site. File material does not indicate that PNAs were ever produced, stored or deposited at the Illinois Central Gulf Railroad site. The petroleum products found in soil samples probably came from spills that occurred during the loading of diesel fuel and lubricants into locomotives. A diesel fuel tank and a lube oil tank are currently located on the property and are used to service locomotives. At the time of construction of the fueling and service center, several areas of soil contaminated with oil were removed. The presence of petroleum products in onsite soil samples can be attributed to site practices.

There are only two pathways of concern for the Illinois Central Gulf Railroad facility: the air and onsite exposure pathways. The groundwater is most likely not affected due to thick beds of clay separating the aquifer of concern from the areas of contamination. PNAs are relatively insoluble in water and are adsorbed onto particulate matter. Migration into the groundwater by PNAs is unlikely. The surface water pathway is not a concern due to a lack of potentially affected targets.

The presence of uncontained, contaminated surface soils was confirmed in this investigation and access to the site could be obtained by nearby residents. Additionally, the uncontained surface soils could be dispersed by the wind into nearby neighborhoods. However, only 411 people reside within 1 mile of the site.

Because the potentially affected population is small, migration of PNAs into groundwater unlikely and the aquifer of concern is protected by overlying beds of clay, FIT 4 recommends that no further remedial action be planned for the site.

REFERENCES

1. NUS Corporation Field Logbook No. F4-1086 for Illinois Central Gulf Railroad, TDD No. F4-8809-02. Documentation of sampling investigation, October 11, 12 1988.
2. Charles H. Chisolm, Director, Bureau of Pollution Control, MS Department of Natural Resources. State of Mississippi Water Pollution Control Permit, National Pollutant Discharge Elimination System (NPDES), Permit No. MS0034762.
3. Kenny Morris, Louisville City Engineer, telephone conversation with Steve Cash, NUS Corporation, usage downgrade from Illinois Central Gulf Railroad.
4. T. Campbell, Engineering Department Blue Print, Oil Spillage Collection Facility, Illinois Central Gulf Railroad, DWG No. A-40349, File No. 182-81, December 9, 1977.
5. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Illinois Central Gulf. Filed by Trey Fleming, Mississippi Bureau of Pollution Control, December 30, 1987.
6. Joyce Kirkpatrick, City Clerk of Louisville, telephone conversation with Steve Cash, NUS Corporation, April 4, 1989. Subject: Population of Louisville.
7. U. S. Environmental Protection Agency, Graphical Exposure Modeling System (GEMS) Data Base, compiled from U.S. Bureau of the census data, 1980.
8. U. S. Department of Commerce, Climatic Atlas of the United States, (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration.
9. National Water Summary, 1984, Hydrologic Events, Selected Water-Quality Trends, and Ground-Water Resources, United States Geological Survey Water-Supply Paper 2275.
10. L. A. Gandl, Characterization of Aquifers Designated as Potential Drinking-Water Sources in Mississippi, Water-Resources Investigations Open-File Report 81-550, 1982.

11. R. E. Taylor and F. H. Thompson, Water for Industrial Development in Kemper, Leake, Neshoba, Noxubee, and Winston Counties, Mississippi, Water Resources Division Study, USGS, 1972.
12. B. E. Wasson, Sources for Water Supplies in Mississippi, USGS, 1986.
13. Tommy Kirkpatrick, Louisville Utility System Manager, telephone conversation with Steve Cash, NUS Corporation, April 5, 1989. Subject: Municipal water usage in Louisville.
14. Tommy Kirkpatrick, Department of Public Works, City of Louisville, telephone conversation with Trey Fleming, Mississippi Bureau of Pollution Control, December 29, 1987. Subject: Municipal water usage in Louisville.
15. Endangered and Threatened Species, U.S. Fish and Wildlife Service, Region 4, Atlanta.
16. Chemical, Physical, and Biological Properties of Compounds Present at Hazardous Waste Sites, U.S. Environmental Protection Agency, Prepared by: Clement Associates, Inc., September 27, 1985.



Potential Hazardous Waste Site

Site Inspection Report



Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART I - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
MS 000077354

II. SITE NAME AND LOCATION

01 SITE NAME (Name, address, or descriptive name of site)
Illinois Central Gulf - Louisville Castle St. & Highway 15
02 CITY
Louisville, Mississippi
03 STATE 04 ZIP CODE 05 COUNTY
MS 39339 Winston
06 COORDINATES
33 06 46.0 | 089 03 44.0
07 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION
10.11.88
02 SITE STATUS
ACTIVE
03 YEARS OF OPERATION
1978 - present
04 AGENCY PERFORMING INSPECTION (Check all that apply)
☒ A. EPA ☒ B. EPA CONTRACTOR NUS
☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR
☐ E. STATE ☐ F. STATE CONTRACTOR ☐ G. OTHER

05 CHIEF INSPECTOR
Steve Cosh
06 TITLE
Environmental Scientist NUS
07 ORGANIZATION
NUS
08 TELEPHONE NO.
404-938-7710
09 OTHER INSPECTORS
10 TITLE
11 ORGANIZATION
12 TELEPHONE NO.

13 SITE REPRESENTATIVE(S)
Jerry Weeks
Midsouth Field Engineer
P.O. Box 346
Louisville MS 39339
601-949-4386
Jim A. Leach
Trainmaster
601-773-8710

14 RECORDS MAINTAINED BY
15 TYPE OF INSPECTION
0840
16 WEATHER CONDITIONS
Clear sky, temperature 70°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT
Trey Fleming
02 TYPE OF INFORMATION
MS. Bureau of Pollution Control
03 TELEPHONE NO.
601-961-5171
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM
Steve Cosh
05 AGENCY
NUS
06 TELEPHONE NO.
404-938-7710
07 DATE
6.1.89



1 HIGHLY VOLATILE
 2 EXPLOSIVE
 3 REACTIVE
 4 INCOMPATIBLE
 5 NOT APPLICABLE

U.S. FORM 2070-1217-011



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

1. IDENTIFICATION
01 STATE 32 SITE NUMBER
MS 00007738

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ B SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☒ C CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: 7273
02 ☒ OBSERVED (DATE: 10/10/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
Air exposure pathway is of concern due to presence of uncontained, contaminated soils. Population at risk is 7273 in a 4-mile radius of the site.

01 ☐ D FIRE/EXPLOSION CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☒ E DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 441
02 ☒ OBSERVED (DATE: 10/10/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
On-site exposure pathway is of concern due to presence of uncontained, contaminated soils. Population at risk is 441 in a 1-mile radius of the site.

01 ☒ F CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 1000
02 ☒ OBSERVED (DATE: 10/10/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
On-site soils are contaminated with tetrachloroethane, toluene and poly nuclear aromatic hydrocarbons (PNAHs).

01 ☐ G DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ H WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ I POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: N/A
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
MS 0000773564

II. HAZARDOUS CONDITIONS AND INCIDENTS *Continued*

01 ☐ J DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

01 ☐ K DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION *(include report of all species)*

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

01 ☐ L CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

01 ☒ M UNSTABLE CONTAINMENT OF WASTES
Include Report Number, Date, Location, etc.
03 POPULATION POTENTIALLY AFFECTED: _____

02 ☒ OBSERVED (DATE: 10/11/88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ N DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

01 ☐ O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

01 ☐ P ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

N/A

06 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

N/A

III. TOTAL POPULATION POTENTIALLY AFFECTED: 7273

IV. COMMENTS

V. SOURCES OF INFORMATION *(see instructions on back of form)*

EPA and State Files, Screening Site
Inspection Report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MS 0000773564

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED <small>Check all that apply</small>	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input checked="" type="checkbox"/> A. RCRA	M50034762	9/15/83	6/30/88	
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE <small>Specify</small>				
<input type="checkbox"/> H. LOCAL <small>Specify</small>				
<input type="checkbox"/> I. OTHER <small>Specify</small>				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/ DISPOSAL, <small>Check all that apply</small>	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT <small>Check all that apply</small>	05 OTHER
<input type="checkbox"/> A. SURFACE IMPONEMENT			<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND DIRECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	06 AREA OF SITE
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input checked="" type="checkbox"/> E. TANK, BELOW GROUND	unk		<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input checked="" type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER <small>Specify</small>	
<input type="checkbox"/> I. OTHER <small>Specify</small>				

07 COMMENTS

IV. CONTAMINANT

01 CONTAMINANT OF WASTE Check all that apply

<input type="checkbox"/> A. ABSOLUTE, SECURE	<input checked="" type="checkbox"/> B. MODERATE	<input type="checkbox"/> C. ABSOLUTE, POOR	<input type="checkbox"/> D. MODERATE, UNBOUND, DANGEROUS
--	---	--	--

02 DESCRIPTION OF DRUMS, DRUMS, LARVES, BARRIERS, ETC.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

VI. SOURCES OF INFORMATION AND OTHER MATERIALS, A.D. AND THE OTHER SOURCE, NAME

EPA and State Files, Screening Site
Inspection Report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

1. IDENTIFICATION
SITE NAME: W5 00073564

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY: WELL

02 STATUS: MONITORED

03 DISTANCE TO SITE: 1/2 (mi)

04 GROUNDWATER USE IN VICINITY: COMMUNITY

05 ONLY SOURCE FOR DRINKING: YES

06 GROUNDWATER USE IN VICINITY: COMMUNITY

07 ONLY SOURCE FOR DRINKING: YES

08 DISTANCE TO NEAREST DRINKING WATER WELL: 1/2 (mi)

09 GROUNDWATER USE IN VICINITY: COMMUNITY

10 ONLY SOURCE FOR DRINKING: YES

III. SURFACE WATER

01 SURFACE WATER USE IN VICINITY: COMMUNITY

02 ONLY SOURCE FOR DRINKING: YES

03 DISTANCE TO NEAREST DRINKING WATER WELL: 1/2 (mi)

04 GROUNDWATER USE IN VICINITY: COMMUNITY

05 ONLY SOURCE FOR DRINKING: YES

06 GROUNDWATER USE IN VICINITY: COMMUNITY

07 ONLY SOURCE FOR DRINKING: YES

08 DISTANCE TO NEAREST DRINKING WATER WELL: 1/2 (mi)

09 GROUNDWATER USE IN VICINITY: COMMUNITY

10 ONLY SOURCE FOR DRINKING: YES

IV. SURFACE WATER

01 SURFACE WATER USE IN VICINITY: COMMUNITY

02 ONLY SOURCE FOR DRINKING: YES

03 DISTANCE TO NEAREST DRINKING WATER WELL: 1/2 (mi)

04 GROUNDWATER USE IN VICINITY: COMMUNITY

05 ONLY SOURCE FOR DRINKING: YES

06 GROUNDWATER USE IN VICINITY: COMMUNITY

07 ONLY SOURCE FOR DRINKING: YES

08 DISTANCE TO NEAREST DRINKING WATER WELL: 1/2 (mi)

09 GROUNDWATER USE IN VICINITY: COMMUNITY

10 ONLY SOURCE FOR DRINKING: YES

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN: 44

02 DISTANCE TO NEAREST POPULATION: 1/2 (mi)

03 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

05 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

06 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

07 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

08 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

09 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

10 DISTANCE TO NEAREST OFF-SITE BUILDING: 1/2 (mi)

Within a 4-mile radius of the facility, there are 7273 residents.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
MS 0000773564

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE Check one

☒ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-2} - 10^{-4}$ cm/sec ☐ D. GREATER THAN 10^{-2} cm/sec

02 PERMEABILITY OF BEDROCK Check one

☐ A. IMPERMEABLE Greater than 10^{-6} cm/sec ☐ B. RELATIVELY IMPERMEABLE $10^{-6} - 10^{-8}$ cm/sec ☐ C. RELATIVELY PERMEABLE $10^{-2} - 10^{-4}$ cm/sec ☐ D. VERY PERMEABLE Greater than 10^{-2} cm/sec

03 DEPTH TO BEDROCK

_____ (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

2 (ft)

05 SOIL, etc.

06 NET PRECIPITATION

9.0 (in)

07 ONE YEAR 24 HOUR RAINFALL

3.5 (in)

08 SLOPE

1

DIRECTION OF SITE SLOPE

West

TERRAIN AVERAGE SLOPE

1

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS - if any

ESTUARINE

OTHER

A. _____ (ft)

B. _____ (ft)

12 DISTANCE TO CRITICAL HABITAT for endangered species

_____ (ft)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREA; NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS -
PRIME AG LAND AG LAND

A. 1/2 (mi)

B. _____ (mi)

C. _____ (mi)

D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

VII. SOURCE OF INFORMATION USE CHECKED APPROPRIATE, E.G., ADD NEW SOURCE ABOVE, REMOVE

EPA and State Files, Screening Site
Inspection Report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

1. IDENTIFICATION
2. STATE OR SITE NUMBER
MS D000773564

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLE SENT TO	03 ANALYSIS DATE (DATE AVAILABLE)
GROUNDWATER	1	Organic analysis -	12/5/88
SURFACE WATER		Environmental Monitoring	
WASTE		Services (EMSI)	
AIR			
RUNOFF			
SPILL		Inorganic analysis -	
SOIL	10	Cambridge Analytical	
VEGETATION		Associates	12/5/88
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
PH	
Temp.	
Conductivity	

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IS COPY OF <u>NYS Corp.</u>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>NYS Corp.</u>

V. OTHER FIELD DATA COLLECTED

VI. SOURCES OF INFORMATION

EPA and State Files, Screening Site Inspection Report.

IDENTIFICATION

U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

MS D00073564

[illegible]



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART B - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

15 000 773564

II. CURRENT OPERATOR

03 YEARS OF OPERATION

OPERATOR'S PARENT COMPANY

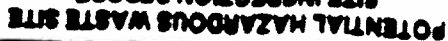
01 NAME	02 SIC NUMBER	10 NAME	11 SIC NUMBER
03 STREET ADDRESS (P.O. Box, Apt. #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, Apt. #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER		

III. PREVIOUS OPERATOR(S)

PREVIOUS OPERATOR'S PARENT COMPANIES

01 NAME	02 SIC NUMBER	10 NAME	11 SIC NUMBER
03 STREET ADDRESS (P.O. Box, Apt. #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, Apt. #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		
01 NAME	02 SIC NUMBER	10 NAME	11 SIC NUMBER
03 STREET ADDRESS (P.O. Box, Apt. #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, Apt. #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		
01 NAME	02 SIC NUMBER	10 NAME	11 SIC NUMBER
03 STREET ADDRESS (P.O. Box, Apt. #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, Apt. #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

IV. SOURCE OF INFORMATION



PART 8 - GENERAL TRANSPORTER INFORMATION

PART 8 - GENERAL TRANSPORTATION INFORMATION

U. S. AIR FORCE

[illegible]



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

1. PAST RESPONSE ACTIVITIES

1. IDENTIFICATION
SI NUMBER: 0000773564

01 - A. WATER SUPPLY CLOSED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - B. TEMPORARY WATER SUPPLY PROVIDED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - C. PERMANENT WATER SUPPLY PROVIDED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - D. SPILLED MATERIAL REMOVED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - E. CONTAMINATED SOIL REMOVED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - F. WASTE REPACKAGED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - G. WASTE DEPOSITED ELSEWHERE	04 DESCRIPTION	02 DATE	03 AGENCY
01 - H. ON SITE BURNED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - I. IN SITU CHEMICAL TREATMENT	04 DESCRIPTION	02 DATE	03 AGENCY
01 - J. IN SITU BIOLOGICAL TREATMENT	04 DESCRIPTION	02 DATE	03 AGENCY
01 - K. IN SITU PHYSICAL TREATMENT	04 DESCRIPTION	02 DATE	03 AGENCY
01 - L. EXCAVATION	04 DESCRIPTION	02 DATE	03 AGENCY
01 - M. EXCAVATED MATERIAL TREATED	04 DESCRIPTION	02 DATE	03 AGENCY
01 - N. OFF-SITE TREATMENT	04 DESCRIPTION	02 DATE	03 AGENCY
01 - O. EMERGENCY DECONTAMINATION WATER DISPERSION	04 DESCRIPTION	02 DATE	03 AGENCY
01 - P. OFF-SITE TREATMENT	04 DESCRIPTION	02 DATE	03 AGENCY
01 - Q. SURFACE OFF-PIPE WALL	04 DESCRIPTION	02 DATE	03 AGENCY



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE OF SITE NUMBER

MS D000773564

1 PAST RESPONSE ACTIVITIES - Continued

01 ☐ R BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S CAPPING COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1 ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2 POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3 OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

II. SOURCES OF INFORMATION (List sources of information, e.g., state files, federal agency reports)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

1. IDENTIFICATION	
01 STATE OR SITE NUMBER	MS 0000773564

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCE OF INFORMATION AND OTHER COMMENTS, E.G., ARE THE ABOVE FACTS CORRECT?